What is claimed is:

1. A method for removing antimony from waste water comprising the steps of:

passing a contaminated liquid through an anion exchange media placed within an anion exchange column;

monitoring said anion exchange column for gas build-up; and

removing built-up gas from said anion exchange column.

2. The method of Claim 1, further comprising the steps of partially filling said anion exchange column with said anion exchange material, wherein said waste water forms a layer above said anion exchange material.

3. The method of Claim 1, further comprising the step of replacing said built-up gas with waste water, wherein said step of replacing maintains a substantial portion of said anion exchange material under said waste water.

4. The method of Claim 1, further comprising the steps of:

monitoring an interface between said built-up gas and said waste water; and

removing said built-up gas from said anion exchange column when said interface reaches a predetermined level.

5. The method of Claim 1, wherein said step of removing built-up gas further comprises the step of applying a positive pressure to said anion exchange column by closing an exit valve in said anion exchange column.

6. The method of Claim 5, said anion exchange column further comprises a gas release mechanism located above an interface between said waste water and said built-up gas.

7. The method of Claim 1, wherein said step of removing built-up gas occurs automatically when an interface between said built-up gas and said waste water reaches a predetermined level.

8. The method of Claim 1, wherein said anion exchange column comprises a substantially transparent vessel.

9. The method of Claim 1, wherein said anion exchange column comprises a vessel with a substantially transparent window for observing an interface between said built-up gas and said waste water.

10. The method of Claim 1, wherein said anion exchange column comprises a vessel with at least one electrode for determining a level of an interface between said built-up gas and said waste water in said anion exchange column.

11. The method of Claim 1, wherein said anion exchange column comprises a vessel with a sonic level indicator for determining gas build-up levels in said anion exchange column.

12. The method of Claim 1, wherein said anion exchange column comprises a vessel with an ultrasonic level indicator for determining gas build-up levels in said anion exchange column.

13. The method of Claim 1, wherein said anion exchange column comprises a vessel and a radiation source on one side of said vessel and a radiation detector on the opposite side of said vessel, wherein said radiation source

and said radiation detector are used to determining gas build-up levels in said anion exchange column.

14. The method of Claim 1, wherein said anion exchange column comprises a vessel with a level indicating tube.

15. The method of Claim 1, wherein the volume of waste water that can be effectively processed by said anion exchange column is at least 900 column volumes.

16. The method of Claim 1, wherein said anion exchange column further comprises an intake port below an interface between said waste water and said built-up gas and a gas release mechanism above said interface.

17. The method of Claim 1, wherein said anion exchange column further comprises a diffusion plate above said anion exchange material and below an interface between said waste water and said built-up gas.

18. The method of Claim 1, wherein said waste water further comprises borate.

19. The method of Claim 18, wherein said borate has a concentration of approximately 500-1200 ppm of boron.

20. An anion exchange column for removing antimony from waste water comprising:

a vessel having a monitoring mechanism for monitoring a level of an interface between said waste water and gas-build up in said anion exchange column;

an intake port for receiving waste water;

an anion exchange material; and

an output port.

21. The anion exchange column of Claim 20, wherein said vessel is at least in part substantially transparent so as to be able to observe said level through said part.

22. The anion exchange column of Claim 20, wherein said entire vessel is substantially transparent.

23. The anion exchange column of Claim 20, wherein said vessel further comprises a substantially transparent window located in a position where said gas/waste water interface can be observed.

24. The anion exchange column of Claim 20, wherein the volume of waste water that can be effectively processed by said anion exchange column is at least 900 column volumes.

25. The anion exchange column of Claim 20, wherein said anion exchange column further comprises an intake valve below said interface and a gas release mechanism above said interface.

26. The anion exchange column of Claim 20, wherein said anion exchange column further comprises a diffusion plate below said interface and above said ion exchange material.

27. The method of Claim 20, wherein said waste water further comprises borate.

28. The method of Claim 27, wherein said borate has a concentration of approximately 500-1200 ppm of boron.

29. An anion exchange column for removing antimony from waste water comprising:

a vessel;

an input port for receiving waste water;

an anion exchange bed immersed with said waste water; and

an output port for removing said waste water after processing,

wherein said vessel is configured to hold a volume of waste water which is at least two times the volume of said anion exchange material in said vessel.

30. The anion exchange column of Claim 29, wherein said vessel is configured to hold a volume of waste water which as at least four times the volume of said anion exchange material in said vessel.

31. The anion exchange column of Claim 29, wherein said vessel is configured to hold a volume of waste water which as at least ten times the volume of said anion exchange material in said vessel.

32. The anion exchange column of Claim 29, wherein the volume of waste water than can be effectively processed by said anion exchange column is at least 900 column volumes.

33. The method of Claim 29, wherein said waste water further comprises borate.

34. The method of Claim 33, wherein said borate has a concentration of approximately 500-1200 ppm of boron.